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Title: METHOD AND APPARATUS FOR SYNTHESIZING AND UTILIZING WAVEFORMS

Inventors: Go Tejima and Norihide Yamada

Docket No.: 10020188-2 Contact: Mikio Ishimaru (408) 738-0592



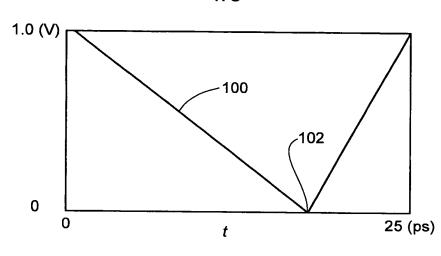


FIG. 1

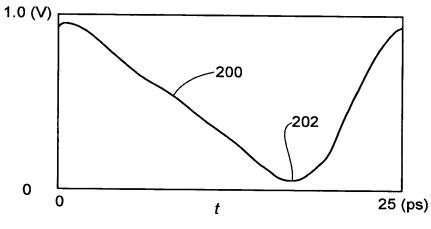


FIG. 2

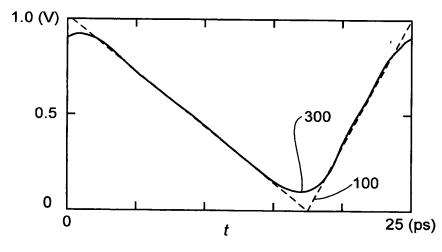


FIG. 3

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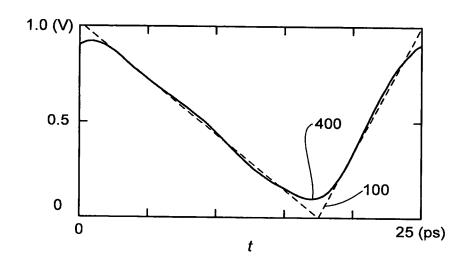


FIG. 4

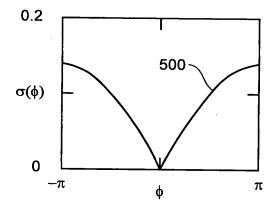


FIG. 5

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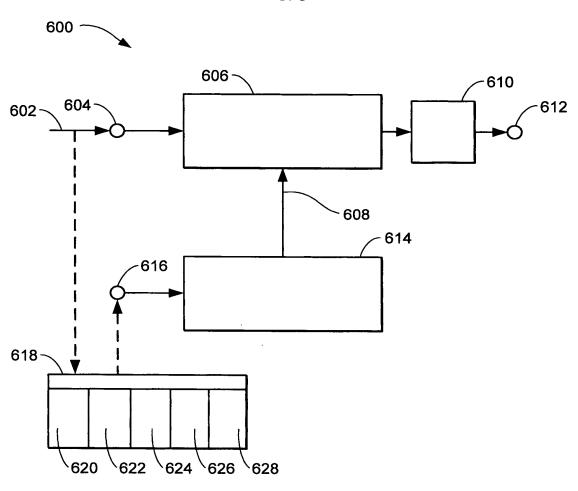


FIG. 6

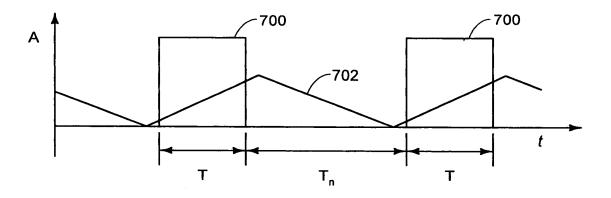


FIG. 7

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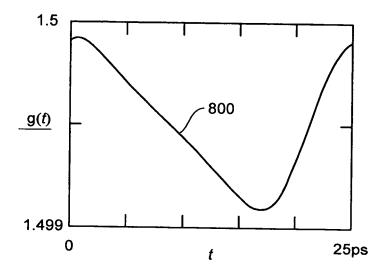


FIG. 8

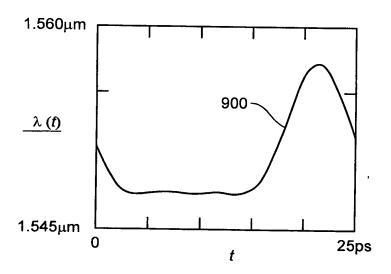


FIG. 9

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SPECIFYING RESPECTIVE FREQUENCIES OF COMPONENT WAVEFORMS TO BE USED TO GENERATE THE ARBITRARY WAVEFORM, THE FREQUENCIES BEING LESS THAN THE MAXIMUM FREQUENCY NEEDED TO SYNTHESIZE THE SPECIFIC WAVEFORM 1002

PERFORMING A LEAST SQUARES OPTIMIZATION OF RESPECTIVE AMPLITUDES AND PHASES OF THE COMPONENT WAVEFORMS ACROSS AT LEAST ONE PREDETERMINED TIME INTERVAL 1004

SUMMING THE COMPONENT WAVEFORMS HAVING THE AMPLITUDES AND PHASES OPTIMIZED BY THE LEAST SQUARES OPTIMIZATION TO PRODUCE THE ARBITRARY WAVEFORM 1006